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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/739,887	12/18/2003	Klaus Hartig	44046.203.289.1	9770

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EXAMINER

CHEN, BRET P

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/739,887

Applicant(s)

HARTIG, KLAUS

Examiner

B. Chen

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 1-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-46 are pending in this application.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 38-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami (5,099,790) in view of Hu et al. (5,433,786). Kawakami discloses a method for forming various functional deposited films usable in electronic devices by plasma chemical vapor deposition (col.1 lines 9-19), specifically ECR plasma CVD (col.2 lines 1-45) in which an ECR plasma generating chamber 801 contains a magnetic field generating device 802, plasma flow and diverging magnetic field 806, a deposition chamber 807, a specimen table 808 with heaters, a specimen substrate 809, a first gas introduction port 810, a second gas introduction port 811 and an exhaust system 813 (col.1 line 65 – col.2 line 14). In one embodiment, the electrode was cleaned in a distinct chamber before sputtering (col.10 line 49 – col.11 line 20). However, the reference fails to teach a rotatable electrode.

Hu discloses a plasma enhanced CVD apparatus which utilizes a rotatable electrode (col.2 lines 35-68). The plasma can be an ECR plasma (col.7 lines 7-14). It would have been obvious to one skilled in the art to utilize a rotatable electrode of Hu in the process of Kawakami to obtain the known advantages including better magnetic confinement.

The limitations of claims 39-46 have been addressed above.

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Claims 38-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luten et al. (6,812,648) in view of Hu et al. (5,433,786). Luten discloses a method and apparatus of cleaning an ion source (col.1 lines 9-13) in a plasma CVD apparatus (col.2 lines 17-48) in which deposition occurs (col.2 line 49 – col.3 line 5) followed by the cleaning of buildup (col.3 lines 6-16). Specifically, the cleanup involves sputtering the undesirable buildup which accumulates on the electrodes (col.6 line 52 – col.7 line 6). However, the reference fails to teach a rotatable electrode.

Hu discloses a plasma enhanced CVD apparatus which utilizes a rotatable electrode (col.2 lines 35-68). The plasma can be an ECR plasma (col.7 lines 7-14). It would have been obvious to one skilled in the art to utilize a rotatable electrode of Hu in the process of Kawakami to obtain the known advantages including better magnetic confinement.

With respect to a first and second gaseous atmosphere and a first and second magnet system, it is noted that the instant claims do not recite that the first and second gaseous atmosphere and a first and second magnet system has to be different. For example, it is noted that the magnet system of Luten reads on a first magnet system when depositing and the second magnet system when cleaning. If the applicant were to amend the claims to recite two different magnet systems and explain its criticality, the examiner will withdraw this art rejection.

The limitations of claims 39-46 have been addressed above.

Response to Arguments

Applicant's arguments with respect to claims 38-46 have been considered but are moot in view of the new ground(s) of rejection.

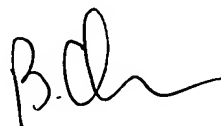
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Chen whose telephone number is (571) 272-1417. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bc
3/19/06



BRET CHEN
PRIMARY EXAMINER